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10/717,502

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EXAMINER

WOLLSCHLAGER, JEFFREY MICHAEL

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/717,502  
Filing Date: November 21, 2003  
Appellant(s): MIYAKAWA ET AL.

James A. Oliff and Robert M. Jackson  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed January 10, 2008 appealing from the Office action mailed December 4, 2006.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The examiner notes that previously cited reference US 5,900,051 has been incorporated into the rejection merely as a rebuttal of appellant's argument against the Official Notice taken by the examiner in the final rejection.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

4,851,376	ASAMI et al.	7-1989
JP55-152011	KASUYA	11-1980
5,900,051	BROWN	5-1999

**(9) Grounds of Rejection**

The examiner notes that the previously cited Brown reference (US 5,900,051) has been incorporated into the rejection merely to rebut appellant's argument against the Official Notice taken by the examiner in the final rejection that the claimed mixer having a hoe is well-known in the art. Therefore the examiner submits that the addition of the Brown reference is not a new grounds of rejection, but is merely in response to Appellant's request for a reference to support the examiner's assertion. The examiner provides the following timeline of the prosecution of the application to illustrate this point:

1. Non-Final Office Action mailed (Examiner Eashoo): June 30, 2006.
2. REMARKS and claim amendments filed: September 20, 2006. This amendment included the claim 1 amendment requiring the mixer have a hoe and a chopper blade.
3. Final Office Action mailed (Examiner Eashoo): December 4, 2006. This office action took official notice that the claimed mixer was well known in the art and provided a motivational statement as to why one having ordinary skill would have employed such a mixer.
4. After Final arguments filed: March 1, 2007. These arguments requested a reference be provided to support the examiner's taking of official notice.

5. Advisory Action mailed (Examiner Wollschlager): March 12, 2007. The examiner provided several references to support the examiner's assertion, including the Brown reference (US 5,900,051).

6. Appellant filed Notice of Appeal: May 4, 2007.

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asami et al. (US Pat. 4,851,376) in view of JP55-152011A and Brown (US 5,900,051).

Asami et al. teaches the claimed process of forming a honeycomb body, comprising mixing raw materials and reclaimed materials for forming a honeycomb body (2:48-65 and examples); dried reclaimed unfired/green material crushed into pieces of about 50 mm and less by using fine milling (3:40-65 and 8:10- 60); and wherein the reclaimed material is substantially the same as the raw material (2:48-65). Asami et al. further teaches that the reclaimed material may be from "a dried, unfired shaped body or it fragments" (3:40- 50 and examples). It is this reclaimed material which is crushed/milled and recycled into the process of Asami et al. Asami et al. does not teach the mixing of undried reclaimed material with a raw ceramic material. Asami et al. also do not teach mixing with the claimed mixer.

However, JP55-152011A teaches mixing of a reclaimed/returned extruded ceramic material, with out drying, with a raw ceramic/pottery material (partial English translation and Fig. 1). JP55-152011A also teaches mixing in a mixer, then further shaping by an extruder (Fig. 1). It is noted that Asami et al. suggests that water may be added to a dried reclaimed material in order to reduce the mechanical impact on the particles (8:10-60). Asami et al. and JP55-152011A are combinable because they are from the same field of endeavor, namely, extrusion of ceramic materials. At the time of invention a person of ordinary skill in the art would have

found it obvious to have mixed the reclaimed/returned extruded ceramic material, with out drying, with a raw ceramic material, as taught by JP55-152011A, in the process of Asami et al., and would have been motivated to do in order to eliminate an undesired process step, namely that of drying (see M-PEP ~ 2144.04, II). It is submitted that the addition of water to a dried reclaimed material is taught to be beneficial Asami et al. and JP55-152011A substantially shows that drying of the reclaimed/returned is not required.

Additionally, Brown teaches a method of mixing pigments particles/powders (col. 4, lines 47-65) with an aqueous binder (col. 6, lines 42-64) where the mixer is a Plowshare mixer having two plows/hoes and one 4-bar "Christmas Tree Chopper"/cross-shaped blade wherein the plows/hoes rotate at a rate of about 155 revolutions per minute and the chopper rotates at about 3,600 revolutions per minute (Abstract; col. 5, lines 12-35 and col. 5, line 62-col. 6, line 27).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have employed the mixer disclosed by Brown as the mixer in the method of Asami et al. because Brown suggests such a mixer can effectively blend materials in a short amount of time (col. 5, lines 28-30) and further suggests that such a mixer is effective at forming appropriate sized agglomerates of particles for further use that don't tend to cake or form lumps (col. 2, lines 1-10; col. 6, lines 1-27).

Asami et al. does not teach a specific mixture of the reclaimed material to raw materials. Asama it et al. does teach that an extruded honeycomb body may be formed by a mixture of reclaimed material to raw materials or wholly of reclaimed materials (2:48-65). Official notice is given that optimizing the relative ratios of reclaimed material to raw materials is well known in the molding art. At the time of invention a person of ordinary skill in the art would have found it obvious to have optimized the relative ratios of reclaimed material to raw materials through

routine experimentation, as commonly practiced in the art, in the process of Asami et al., and would have been motivated to do so in order to provide an economical and stable product.

Asami et al. does not teach a using a specific order of mixing the reclaimed material to raw materials. Official notice is given that mixing the reclaimed material into to raw materials in a continuous process is well known in the molding art. At the time of invention a person of ordinary skill in the art would have found it obvious to have mixed the reclaimed material into to raw materials in a continuous process, as commonly practiced in the art, in the process of Asami et al., and would have been motivated to do so in order to reuse reclaimed materials without disrupting the normal processing of raw materials.

Asami et al. does not teach a using a specific type of extruder as recited in claims 8-10. Official notice is given that the use of either a single screw or twin screw extruder is well known in the ceramic molding art. At the time of invention a person of ordinary skill in the art would have found it obvious to have use of either a single screw or twin screw extruder operating at an optimized speed, as commonly practiced in the art, in the process of Asami et al., and would have been motivated to do so in order to sufficient mixing to provide a stable product wherein damage to the material is not caused by excessive mixing shear.

The examiner recognizes that all of the claimed effects and physical properties are not positively stated by the reference(s), for example, the average specific total volume shared by distributed pores. However, the reference(s) teaches all of the claimed ingredients, process steps, and process conditions. Therefore, the claimed effects and physical properties would intrinsically be achieved by carrying out the disclosed process.

**(10) Response to Argument**

Appellant's argument essentially alleges that the examiner has not established a *prima facie* case of obviousness because there is no motivation to combine the references and none of the references teach or suggest "a hoe that rotates at a low speed and a chopper that rotates at a high speed". The examiner disagrees with Appellant's argument and submits that a *prima facie* case of obviousness has been established by the combination of references and that the claimed limitations are taught and suggested by the references, including "a hoe that rotates at a low speed and a chopper that rotates at a high speed".

A brief review of the applied references shows that:

1) Asami et al. teach a process for producing a cordierite ceramic body by using a reclaimed cordierite ceramic composition alone or in combination with fresh ceramic raw materials (Abstract). Asami et al. disclose a method wherein a consistently stable ceramic body having a sufficiently low coefficient of thermal expansion is produced (col. 2, lines 9-12). The method of Asami et al. is such that dried, unfired, rejected material may be recycled/reclaimed while still achieving the desired coefficient of thermal expansion with less fluctuation than was previously possible (col. 2, lines 13-56). Asami et al. are able to achieve this effective use of rejected material by utilizing an evaluation technique (col. 1, lines 18-21) that is discussed throughout the disclosure.

While the prior art processes suggested by Asami et al. had difficulty effectively reclaiming dried, unfired rejected material and still maintaining the required coefficient of thermal expansion with minimal fluctuations in values, Asami et al. disclose a method that is able to produce these desired results. Asami et al. teach and suggest that being able to achieve the required coefficient of thermal expansion with reclaimed material permits a significant reduction in costs (col.2, lines 57-62; col. 7, lines 38-41; col. 9, lines 44-50;).



The examiner submits that Asami et al. suggest that the goal of the method is to produce a suitable ceramic honeycomb product (i.e. having the required coefficient of thermal expansion) at the lowest possible cost (i.e. reclaiming/recycling rejected material instead of wasting it). Accordingly, the examiner disagrees with the comments in Appellant's brief stating that Asami et al. desire to use dried articles because of the art recognized problems of using undried articles (page 12 of the brief). The examiner submits that the teaching and suggestion of Asami et al. is a method for effectively reusing dried, unfired, rejected material, wherein the prior art attempts at reusing dried, unfired, rejected materials had difficulty producing a high quality, stable product.

The process of Asami et al. reclaims/recycles dried, unfired, rejected ceramic material (col. 10, line 23-col. 11, line 46) and mixes it with fresh ceramic material, a binder (e.g. methylcellulose) and water (col. 13, lines 26-35). The mixture is uniformly kneaded and extruded (col. 13, lines 35-36) to obtain a honeycomb body (col. 1, lines 10-15). The dried, unfired, rejected ceramic material is crushed into small pieces having an average diameter of 50 mm (col. 8, lines 12-17) and is then further milled, to a smaller size, in a fine milling operation to form a powdered material (col. 8, lines 17-44; Table 3) prior to being reused in the process. The reclaimed ceramic material is suitably employed in the starting material at ranges from 2.5% to 100% by weight (col. 8, line 68-col. 9, line 2; Table 6).

2) JP55-152011 teaches a method of producing a ceramic pottery material wherein clay and water are mixed together (3), fed to a kneading-extruding machine (4), and are then fed to a vacuum kneading-extruding machine (5) to produce a desired article. JP55 teaches that "defective molded articles" are recovered from the kneading-extruding machine (5) (page 2, line 17 of the translation) and that no drying steps are performed prior to recovering the material (Abstract) from the kneading-extruding machine.

3) Brown teaches a method of mixing pigments particles/powders (col. 4, lines 47-65) with an aqueous binder (col. 6, lines 42-64) where the mixer is a Plowshare mixer having two plows/hoes and one 4-bar "Christmas Tree Chopper"/cross-shaped blade wherein the plows/hoes rotate at a rate of about 155 revolutions per minute and the chopper rotates at about 3,600 revolutions per minute (Abstract; col. 5, lines 12-35 and col. 5, line 62-col. 6, line 27).

A1) Appellant argues that the examiner has not provided a proper suggestion or motivation to combine Asami with JP55.

a. Appellant argues that the examiner has improperly combined different embodiments of Asami. This argument is not persuasive. As an initial matter, the examiner notes that he fully agrees with the argument directed to the fact that Asami et al. teach two different embodiments for recovering the dried material in order to make it suitable for reuse in the process. Asami et al. teach one embodiment that is a mechanical process, wherein the material is crushed/milled (col. 8, lines 13-44), and another embodiment that creates a slurry with water to divide the rejected material into particles (col. 8, lines 44-54). However, the fact that there are two embodiments is not pertinent because the rejection does not combine the two embodiments, but merely employs the one embodiment for the process steps (i.e. mechanical crushing/milling process) and refers to the second, slurry, embodiment to demonstrate a reasonable expectation of success that wet/undried material can be effectively reused in Asami et al.'s process. The reference to the second embodiment, when taken with the teaching of JP55, provides the motivation and reasonable expectation of success to make the modification to Asami et al.

Said somewhat differently, the examiner's intent in pointing out Asami et al.'s disclosure of adding water to the dried, rejected material prior to reusing it is to demonstrate that in combination with the teaching of JP55, one having ordinary skill in the art would have had a

reasonable expectation of success of employing undried material (i.e. material that contains water) in the process of Asami et al. because Asami et al. show that adding water to the dried material still yields a material that is suitable for reuse. As such, the combination suggests that undried material may be recycled (JP55) in the method of Asami et al. and that one having ordinary skill would have had a reasonable expectation of success in making the proposed modification to Asami et al. Further, the examiner notes that the reasonable expectation of success is further advanced when one considers the evaluation technique employed by Asami et al. Asami et al. know how to determine whether the rejected material will afford production of a desired product (col. 5, lines 37-49; col. 6, lines 61-65) and know how to adjust the formulation to ensure success (col. 7, lines 13-22).

Therefore, the examiner submits that the combination of Asami et al. with JP55 teaches and suggests modifying the method of Asami et al. by using undried, unfired, rejected/defective material, as suggested by JP55, to replace the dried, unfired, rejected material disclosed by Asami et al., for the purpose of being able to recover the rejected material prior to the drying step (i.e. elimination of the drying step for rejected material, MPEP 2144.04 II) while still achieving the low cost production and stable coefficient of thermal expansion goals set forth by Asami et al. with a reasonable expectation of success.

The examiner further notes that the undried, unfired, rejected, yet formed/extruded material of Asami et al. that is to be reclaimed by the combination would clearly still be required to undergo either the crushing/milling process (col. 8, lines 13-44) or the slurry formation process (col. 8, lines 44-54) to produce a material that is ready to be reused. The examiner submits that the selection of either one of the two processes would have been *prima facie* obvious as Asami et al. disclose both as being equivalent alternative methods for preparing the rejected material for reuse/reclamation (MPEP 2144.06-2144.07).

b. Appellant argues that Asami teaches away from using undried green bodies since Asami uses reclaimed dry bodies because of art-recognized problems associated with reusing undried green bodies. This argument is not persuasive. The examiner submits that there is no evidence in the record to support an assertion that Asami employs dried materials because of art-recognized problems associated with reusing undried materials. The examiner refers back to the brief review of Asami et al. set forth above and notes that Asami et al. have established a method of reusing dried materials, where others have failed using dried materials (col. 2, lines 13-46). Asami et al. neither state nor imply that they use dried materials due to an inability to use undried materials. The teaching and suggestion of Asami et al. is a method that allows (i.e. does not require) them to reuse dried materials while still being able to achieve required quality (e.g. coefficient of thermal expansion). Further, there is nothing in Asami et al. that suggests one must use dried material to achieve the coefficient of thermal expansion; the suggestion is that one can use dried material and still create a stable product having the desired coefficient of thermal expansion. The primary benefit of employing the dried material in Asami et al. is the reduction in costs. There is no teaching or suggestion in Asami et al. regarding undried materials as set forth in the argument.

Accordingly, the examiner submits that the desire (emphasis added to juxtapose appellant's argument in the last paragraph of page 12) of Asami et al. is the production of a honeycomb ceramic material having the required coefficient of thermal expansion at a low cost. The reuse of the dried material and the evaluation technique of Asami et al. allow for the low cost production while still being able to produce a product having the required coefficient of thermal expansion. The combination set forth in the final rejection does not preclude achieving the goal/desire of Asami et al. and is not taught away from by Asami.

c. Asami in combination with JP55 does not “eliminate” a process step. This argument is not persuasive. The examiner submits that the combination of Asami et al. with JP55 teaches and suggests modifying the method of Asami et al. by using undried, unfired, rejected material, as suggested by JP55, to replace the dried, unfired, rejected material disclosed by Asami et al. for the purpose of being able to recover the rejected material prior to the drying step (i.e. elimination of the drying step for rejected material) while still achieving the low cost production and stable coefficient of thermal expansion goals set forth by Asami et al. Accordingly, the step that is eliminated is the drying step for rejected material.

Additionally, appellant argues that adding water to the dried material is adding and not eliminating a process step. This argument is not persuasive. The examiner submits that the combination set forth in the rejection is not to add water to the dried material as argued, but to not dry the material in the first place in instances where the undried material can be identified as being scrap material prior to it being dried. In other words, the examiner does not submit that the drying step is completely eliminated. The drying step is only eliminated with regard to scrap material. Nonetheless, this is an elimination of a step and one having ordinary skill would have been motivated to recover the scrap material more quickly without having to spend the time and money to dry it.

Appellant further argues that JP55 does not disclose recycling a rejected product and does not teach or suggest the problem solved by the claimed invention. This argument is not persuasive. Initially, the examiner notes that JP55 does disclose recycling an undried rejected/defective article (page 2, line 17 of the translation). Further, JP55 suggests that undried materials can be effectively reclaimed for reuse in the extrusion process. The examiner further notes that the rejection is based on a combination of references and that in response to applicant's arguments against JP55 individually; one cannot show nonobviousness by attacking

references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

A2) Appellant argues that the prior art does not teach or suggest "a hoe that rotates at a low speed and a chopper that rotates at a high speed".

a. Appellant argues that the examiner has improperly relied on common knowledge in the art without evidentiary support. Further, appellant has traversed the examiner's taking of official notice. This argument is not persuasive. The examiner submits that the proper procedures and practices have been followed regarding the taking of official notice. The examiner provides the following timeline of the prosecution history of the current application to illustrate the propriety of the examiner's actions up to this point:

1. Non-Final Office Action mailed (Examiner Eashoo): June 30, 2006.
2. REMARKS and claim amendments filed: September 20, 2006. This amendment included the claim 1 amendment requiring the mixer have a hoe and a chopper blade as argued.
3. Final Office Action mailed (Examiner Eashoo): December 4, 2006. This office action took official notice that the claimed mixer was well known in the art and provided a motivational statement as to why one having ordinary skill would employ such a mixer in the claimed process.
4. After Final arguments filed: March 1, 2007. These arguments traversed the official notice taken by the examiner and requested a reference be provided to support the examiner's assertion.

5. Advisory Action mailed (Examiner Wollschlager): March 12, 2007. The examiner provided several references to support the examiner's assertion, including the Brown reference (US 5,900,051).

6. Appellant filed Notice of Appeal: May 4, 2007.

Appellant further argues that the references cited by the examiner in the advisory action show various mixers but do not discuss the use of the mixer in the context of the claimed invention. This argument is not persuasive. Brown teaches a method of mixing pigments particles/powders (col. 4, lines 47-65) with an aqueous binder (col. 6, lines 42-64) where the mixer is a Plowshare mixer having two plows/hoes and one 4-bar "Christmas Tree Chopper"/cross-shaped blade wherein the plows/hoes rotate at a rate of about 155 revolutions per minute and the chopper rotates at about 3,600 revolutions per minute (Abstract; col. 5, lines 12-35 and col. 5, line 62-col. 6, line 27).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have employed the mixer disclosed by Brown as the mixer in the method of Asami et al. because Brown suggests such a mixer can effectively blend materials in a short amount of time (col. 5, lines 28-30) and further suggests that such a mixer is effective at forming appropriate sized agglomerates of particles for further use that don't tend to cake or form lumps (col. 2, lines 1-10; col. 6, lines 1-27).

The examiner submits that this is the same motivation, now set forth with a requested reference, as that set forth by the examiner in the final rejection with the taking of official notice. Namely, the examiner set forth that one having ordinary skill would have been motivated to provide sufficient mixing to establish formation of a stable product wherein damage is not caused by excessive mixing (i.e. ensure the mixture receives the proper amount of mixing).

Furthermore, while the examiner submits and maintains that the claimed mixer is clearly set forth by the provided reference and that a proper motivation has been established to employ such a mixer in the combination, it is worth noting that the original disclosure makes it clear that there is no particular restriction or criticality associated with the mixer as long as it can mix the raw material (US 2004/0115392, paragraph [0035]).

b. Appellant argues that the examiner's motivation of using the claimed mixer to reduce shear is improper because the claimed mixer increases shear. This argument is not persuasive. The examiner submits that while the examiner did use the word "excessive" in the final rejection and the grammar is somewhat broken, the clear suggestion in the pertinent portion of the final rejection (copied exactly as it appeared below) is to provide the proper amount of mixing (i.e. not too much or too little) with a proper mixer. The examiner notes for the sake of clarity that the reference to a single screw extruder and a twin screw extruder in the pertinent portion of the final rejection below was directed to dependent claims 8-10 not independent claim 1:

Asami et al. does not teach a using a specific type of extruder. Official notice is given that use of either a single screw, twin screw extruder, a mixer having a hoe, is well known in the ceramic molding art. Similarly, optimizing the operating speed of a mixer or extruder is also well known in the extrusion art. At the time of invention a person of ordinary skill in the art would have found it obvious to have use of either a single screw or twin screw extruder, a mixer having a hoe, operating at an optimized speed, as commonly practiced in the art, in the process of Asami et al., and would have been motivated to do so in order to sufficient mixing to provide a stable product wherein damage to the material is not caused by excessive mixing shear (page 3, 12/4/06 Final rejection).

Appellant further argues that Asami teaches that the particles are easily damaged by mechanical impact and that increasing the mixing with the claimed mixer would be contrary to Asami's teaching as it would damage Asami's particle. This argument is not persuasive. Initially, the examiner submits that there is no persuasive evidence in the record to support the suggestion that the claimed mixer provides more shear than the mixer employed by Asami et al. Furthermore, the examiner notes that Asami's teaching regarding mechanical damage is



directed to the process of recovering the dried, unfired rejected material initially (i.e. crushing/milling the rejected article) and is not directed to the material once it has already been recovered and is now a part of the overall batch (i.e. including water, binder, and other fresh ceramic material) that is to be fed to the extruder for forming the honeycomb body. Accordingly, the examiner submits appellant's argument is taken from a different context of the Asami et al. reference and is not directed to or pertinent regarding the mixer to be employed in the instant claims.

B1) Claims 3 and 4 would not have been obvious over Asami in view of JP55 because the office action fails to establish that the alleged optimizable variable (i.e. amount of reclaimed ceramic material relative to the ceramic material) was recognized as a result effective variable in the prior art. This argument is not persuasive. As an initial matter, the examiner notes that Asami et al. teach that the reclaimed material can be employed in an amount ranging from 2.5% to 100% by weight (col. 3, lines 64-68; col. 8, line 68-col. 9, line 2). Further, Asami et al. exemplify a variety of proportions of reclaimed ceramic material and fresh ceramic material within the claimed range (Table 6). Further still, Asami et al. disclose how to determine whether the rejected material will afford production of a desired product (col. 5, lines 37-49; col. 6, lines 61-65) and how to adjust the formulation to ensure the required coefficient of thermal expansion is achieved (col. 7, lines 13-22). Furthermore, Asami et al. teach that employment of reclaimed materials reduces material costs (col. 7, lines 38-47; col. 9, lines 44-50).

Accordingly, the examiner submits that the combination suggests controlling the level of the undried, unfired, rejected material to levels that would achieve the required product quality while minimizing production costs and that the amount of reclaimed material to be employed in

the combination would have been readily optimized as a result effective variable (i.e. it impacts both the coefficient of thermal expansion and material costs).

C) Appellant argues that the claims require the crushed green body be a crushed undried green body. Appellant points to the comment in the advisory action where it was noted by the examiner that the claims did not positively require the crushed green body be a crushed undried green body. Appellant argues that the language in the claim itself, as well as when read in the context of the specification, makes it clear that the crushed green body is necessarily a crushed undried green body. This argument is persuasive. The examiner agrees that the limitation in the claims is sufficiently clear and that the crushed green body is clearly a crushed undried green body. However, the examiner notes that this statement made in the advisory action was not the interpretation employed in the rejection and that it has no impact on the propriety of the rejection or the positions taken by the examiner in response to appellant's other arguments in this Answer.

#### **(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

Art Unit: 1791

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/J. W./  
Jeff Wollschlager  
Examiner, Art Unit 1791

Conferees:

/Christina Johnson/  
Supervisory Patent Examiner, Art Unit 1791

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